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dCat. No. 16-429

OWNER'S MANUAL

Please read before using this equipment.

Model 36

9" Color TV/VCR Combo

OPTIMUS®

FEATURES

Your Optimus Model 36 9" Color TV/VCR Combo combines a versatile color TV/monitor and a VCR in one space-saving cabinet. The supplied AC power cord and DC adapter let you enjoy it in your home, office, car, RV, van, or boat — almost anywhere! The Model 36 receives TV programs and plays video tapes. It also records video tapes from TV programs or an audio/video source you connect it to.

Please read this owner's manual carefully. It has been prepared to assist you with initial setup procedures and to guide you in the Model 36's everyday operation.

Your Model 36 has these features:

Automatic/Manual Clock Setting — lets you set the Model 36 to automatically update its clock using EDS (Extended Data Service) signals broadcast by certain stations when you operate the Model 36 using AC power. You can also manually set the clock.

Note: EDS is a service provided by some broadcasters to transmit various types of information including the current time. If no broadcasters in your area transmit EDS signals, automatic clock setting will not work.

Automatic D.S.T. (Daylight Saving Time) Adjustment — lets you set the Model 36 to automatically adjust the time for Daylight Saving Time when you operate the Model 36 using AC power.

Automatic Head Cleaning System — cleans the Model 36's video heads each time you insert and eject a tape, to preserve excellent picture quality.

Auto Return — rewinds the tape to the beginning of the recording when timer recording ends.

Closed Captioning — receives and displays closed caption signals for those programs that broadcast them, and lets you receive other information from TV stations.

Remote Control — compact and easy to use, the remote control lets you operate most of the Model 36's tape-motion and TV controls from a distance.

Front Panel Video/Audio Input Jacks — let you quickly connect an audio/video device such as a camcorder or video game, without disconnecting other devices.

Bilingual On-Screen Menu — displays instructions on the TV screen in English or Spanish.

179-Channel Capability, Digital PLL (Phase-Locked Loop) Tuner — lets you view broadcasts tuned from an antenna, cable system, or audio/video from another video source, providing a clear, sharp picture.

Tuner Memory Programming — automatically stores all the active channels in your area into memory. You can also manually program the tuner's memory, making it easy to add new channels when you move the Model 36 to another area, or delete channels you do not want.

Two-Way Power — lets you power the Model 36 from standard AC power (with the supplied AC power cord) or your vehicle's battery (with the supplied DC adapter).

Dew Protection System — protects the Model 36 by preventing VCR operation in very humid conditions.

Channel Return — lets you quickly switch between broadcasts on two different channels by pressing a single button.

1-Year, 8-Event, Digital Timer — lets you program the Model 36 to make up to eight unattended weekly, daily, or one-time recordings within a 1-year period.

Game Mode Setting — lets you quickly set the Model 36 to the best video setting for viewing video games.

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Automatic/Manual Tracking — automatically adjusts the tracking for each tape you play. You can also adjust the tracking manually.

Automatic Playback/Rewind/Eject — makes playback easy by automatically playing, rewinding, and ejecting a video cassette tape.

Sleep Timer — lets you set the Model 36 to play for the amount of time you select, then automatically turn off.

Auto Repeat — lets you set the Model 36 to automatically repeat a tape when, during playback, it reaches the end or a blank section on the tape.

Rental Play — improves playback picture quality of worn tapes, such as rental tapes.

Dual-Speed Fast-Forward/Reverse with Visual Search and Time Search — helps you easily find a selection on the tape, and lets you quickly move the tape through recorded material you want to skip.

Freeze-Frame — lets you temporarily stop the action and view a single frame.

Digital Tape Counter with Memory — lets you select and return to a specific point on the tape.

Three Recording/Playback Speeds — let you choose the best recording speed for the desired length and recording quality.

Earphone Jack — lets you connect an earphone (not supplied) to the Model 36.

Note: Your Model 36's remote control requires two AA batteries (not supplied) for operation.

We recommend you record your Model 36's serial number here. The number is on the back panel.

Serial Number _____

WARNING: To reduce the risk of fire or shock hazard, do not expose this product to rain or moisture.

CAUTION

RISK OF ELECTRIC SHOCK.
DO NOT OPEN.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER OR BACK. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.

This symbol is intended to alert you to the presence of uninsulated dangerous voltage within the product's enclosure that might be of sufficient magnitude to constitute a risk of electric shock. Do not open the product's case.

This symbol is intended to inform you that important operating and maintenance instructions are included in the literature accompanying this product.

Note: Most material performed in public, such as concerts, plays, and movies, or distributed on prerecorded video tapes is copyrighted. The unauthorized recording or duplication of copyrighted material is a violation of the copyright laws of most countries and such duplication may result in fines and/or imprisonment. Note, however, that in the United States, it is not a violation of U.S. copyright laws for a consumer to record a broadcast television program for private (in-home) viewing.

IMPORTANT SAFEGUARDS AND PRECAUTIONS

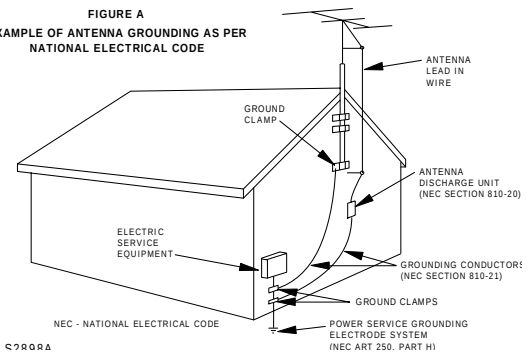
1. **Read instructions** — All the safety and operating instructions should be read before the appliance is operated.
2. **Retain Instructions** — The safety and operating instructions should be retained for future reference.
3. **Heed Warnings** — All warnings on the appliance and in the operating instructions should be adhered to.
4. **Follow Instructions** — All operating and use instructions should be followed.
5. **Cleaning** — Unplug TV/VCR from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
6. **Attachments** — Do not use attachments not recommended by the TV/VCR manufacturer as they may cause hazards.
7. **Water and Moisture** — Do not use this TV/VCR near water-for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.
8. **Accessories** — Do not place this TV/VCR on an unstable cart, stand, tripod, bracket, or table. The TV/VCR may fall, causing serious injury to someone and serious damage to the appliance. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the TV/VCR. Any mounting of the appliance should follow the manufacturer's instructions and should use a mounting accessory recommended by the manufacturer. An appliance and cart combination should be moved with care.

   Quick stops, excessive force, and uneven surfaces may cause an appliance and cart combination to overturn.
9. **Ventilation** — Slots and openings in the cabinet and the back or bottom are provided for ventilation and to ensure reliable operation of the TV/VCR and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the TV/VCR on a bed, sofa, rug, or other similar surface.

   This TV/VCR should never be placed near or over a radiator or heat register. This TV/VCR should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
10. **Power Sources** — This TV/VCR should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your appliance dealer or local power company. For TV/VCRs intended to operate from battery power or other sources, refer to the operating instructions.
11. **Grounding and Polarization** — This TV/VCR is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
12. **Power-Cord Protection** — Power-supply cords should be routed so they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
13. **Outdoor Antenna Grounding** — If an outside antenna or cable system is connected to the TV/VCR, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of

antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

FIGURE A
EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE



14. **Lightning** — For added protection for this TV/VCR receiver during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the TV/VCR due to lightning and power-line surges.

15. **Power Lines** — An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

16. **Overloading** — Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

17. **Object and Liquid Entry** — Never push objects of any kind into this TV/VCR through openings as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the TV/VCR.

18. **Servicing** — Do not attempt to service this TV/VCR yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

19. **Damage Requiring Service** — Unplug this TV/VCR from the wall outlet and refer servicing to qualified service personnel under the following conditions:

    - When the power-supply cord or plug is damaged or frayed.
    - If liquid has been spilled or objects have fallen into the TV/VCR.
    - If the TV/VCR has been exposed to rain or water.
    - If the TV/VCR does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions, as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the TV/VCR to its normal operation.
    - If the TV/VCR has been dropped or the cabinet has been damaged.
    - When the TV/VCR exhibits a distinct change in performance — this indicates a need for service.

20. **Replacement Parts** — When replacement parts are required, be sure the service technician has used replacement parts, specified by the manufacturer, that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, injury to persons or other hazards.

21. **Safety Check** — Upon completion of any service or repairs to this TV/VCR, ask the service technician to perform routine safety checks to determine that the TV/VCR is in proper operating condition.

22. **Heat** — This TV/VCR product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

Warning: When you install an outdoor antenna, use extreme caution. If the antenna starts to fall, let it go! It could contact overhead power lines. If the antenna touches the power line, contact with the antenna, mast, cable, or guy wires can cause electrocution and death. Call the power company to remove the antenna. Do not attempt to remove it yourself!

SERVICE

1. Except as noted in this owner's manual, do not attempt to service this TV/VCR yourself. Instead, unplug it and contact a qualified service technician.
2. Be sure the service technician uses authorized replacement parts or their equivalents. Unauthorized parts may cause fire, electrical shock, or other hazards.
3. Following any service or repair, be sure the service technician performs safety checks to certify that your TV/VCR is in safe operating order.

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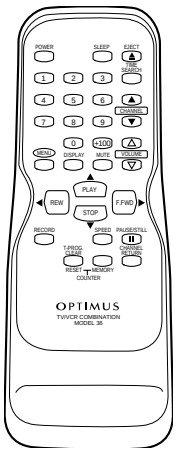
BEFORE YOU BEGIN

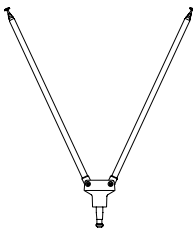
ACCESSORIES

Your Model 36 includes the following accessories. Be sure you have all of these items before you store the packing material.

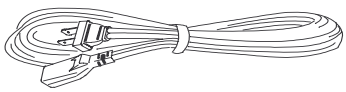
Remote Control — controls most of your Model 36's functions.



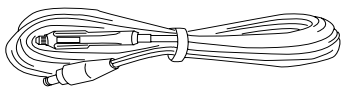
UHF/VHF Dipole Antenna — provides adequate reception in most metropolitan areas.



AC Power Cord — lets you power the Model 36 from standard AC power.



DC Adapter — lets you power the Model 36 from your vehicle's battery.



300-to-75-ohm Matching Transformer — lets you connect a 300-ohm antenna lead to your Model 36's **ANT.** terminal.

MOISTURE CONDENSATION

Condensation inside the Model 36's VCR can cause tape jams or video head damage. When the Model 36's automatic dew sensor senses moisture, **DEW** appears and the Model 36 will not play a tape.

If **DEW** appears, or when you move your Model 36 from a cold area to a warm one, unplug the Model 36 and let it sit for about 2 hours, or until **DEW** no longer appears when you plug it in. This allows complete evaporation of any moisture inside the Model 36.

USING THIS MANUAL

This manual is organized into these major sections.

- "Connections" on Page 11 — describes the connections required to begin using your Model 36.
- "Setup" on Page 15 — includes procedures for preparing and using the remote control, setting the on-screen language, storing channels, selecting the input signal, and setting the clock.
- "Basic TV Operation" on Page 20 — explains how to select channels, watch TV using the Model 36's tuner, adjust the picture (brightness, contrast, color, tint, and sharpness), mute the sound, use the channel return feature, and view an external device.
- "Basic VCR Operation" on Page 22 — explains how to load and play a video tape, use the Model 36's visual search and freeze-frame features, fast-forward and rewind a tape, and adjust the tracking manually.
- "Special Functions" on Page 24 — describes the things you see on the Model 36's TV screen, how to use the Model 36's sleep timer, game mode, counter, time search, and automatic repeat playback functions, improve playback of old or damaged video tapes, and use the Model 36's closed caption function.
- "Recording" on Page 28 — describes the different types of recordings and gives instructions for making each, and shows how to use the Model 36's auto return function.
- "Additional Information" on Page 36 — includes a troubleshooting section, care and maintenance procedures, FCC information, procedures for replacing the DC adapter's fuse, information on servicing your Model 36, cleaning the Model 36's video heads, storing video cassettes, and degaussing.
- "Specifications" on Page 41 — lists the Model 36's specifications.

CONNECTIONS

Before using your Model 36 for the first time, read through this entire section to determine which connections best meet your needs. Then follow the directions for completing the connections.

Notes:

- You can connect many different types of audio/video systems such as a stereo receiver/amplifier, a satellite receiver, or a combination of a cable system and outside antenna to your Model 36. These connections might require additional supplies that are available from your local RadioShack store.
- Disconnect power from the Model 36 when making connections. Do not connect the Model 36's power cord (AC or DC) until you complete all other connections.

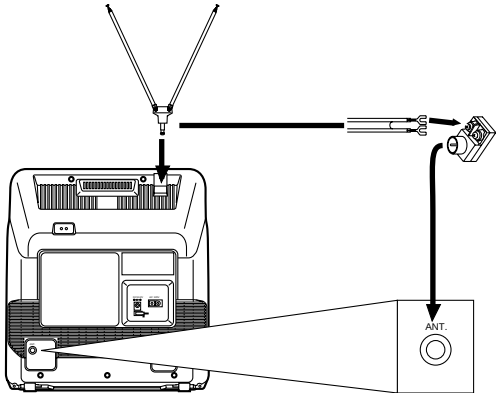
CHOOSING A LOCATION

Choose a location for your Model 36 where:

- air flows freely on all sides of the Model 36
- the power cord (AC or DC) is not in the way of normal traffic

CONNECTING THE SUPPLIED ANTENNA

Follow these steps to connect the supplied antenna.



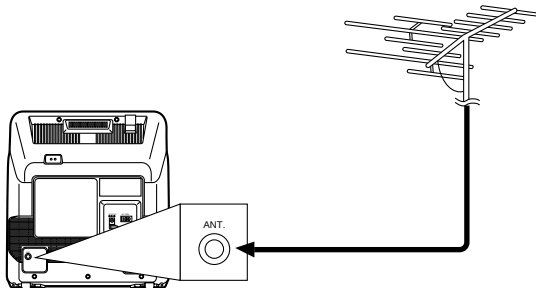
1. Insert the antenna's post into the socket on top of the Model 36's cabinet.
2. Connect both sides of the antenna's cable to the supplied 300-to-75-ohm matching transformer.
3. Plug the 300-to-75-ohm matching transformer into the Model 36's **ANT.** terminal.
4. Fully extend the antenna and adjust it for the best VHF reception.

Note: To improve UHF reception, shorten the antenna.

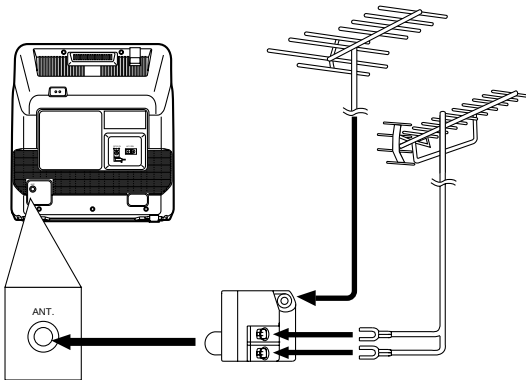
CONNECTING AN OUTDOOR ANTENNA

The supplied antenna provides good reception in most areas. But, for the best reception in all areas, use a high-quality outdoor antenna, available at your local RadioShack store.

- If the antenna uses 75-ohm coaxial cable, connect the antenna's cable directly to the Model 36's **ANT.** terminal.



- If the antenna uses 300-ohm cable, use the supplied 300-to-75-ohm matching transformer to make the connection.
- If you have separate VHF and UHF antennas, connect the antenna cables to a splitter/combiner (such as RadioShack Cat. No. 15-1296). Then connect the splitter/combiner's output to the **ANT.** terminal.



Refer to your antenna's installation instructions for additional information.

CONNECTING TO A CABLE SYSTEM

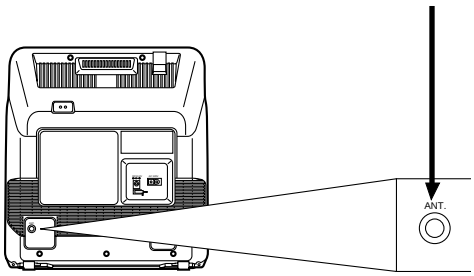
Note to the CATV system installer:

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the National Electrical Code that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

To receive cable channels, you must connect the Model 36 to your local cable system.

Caution: Some areas have laws restricting direct connections to cable wires (connections that do not go through the cable box). Check the laws in your area before making any connections.

If you do not receive scrambled channels, you can connect the cable directly to the Model 36's **ANT.** terminal.



If you receive scrambled channels, you must connect the cable to the cable converter box, then connect the cable converter box to the Model 36's **ANT.** terminal.

Set the Model 36 to the cable box's output channel (3 or 4) (see "Selecting Channels" on Page 20) and use the cable box to select the channel.

Cable Channel Designations

Your Model 36 can receive up to 125 cable channels, displayed as 1–125. Channels 2–13 are the same for VHF and cable TV, and cable companies usually number them as they appear on the TV screen. For other channels, the cable service's channel designations might not match the channel numbers that appear.

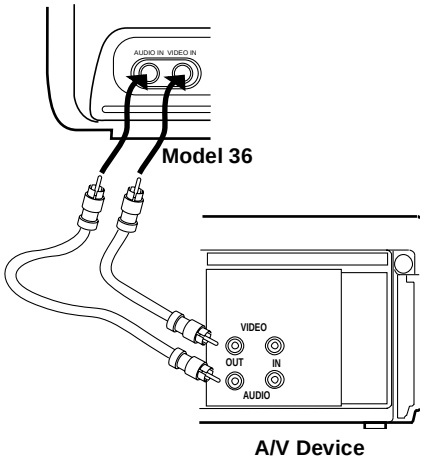
For more information, contact your cable company. You still might have to experiment to determine the proper cable channel designations for your cable system.

CONNECTING AN EXTERNAL DEVICE

You can connect another audio/video device that has audio/video outputs, such as a VCR, camcorder, or satellite receiver, to the Model 36 so you can view the source's output on the Model 36.

Note: Always use video-quality shielded cables with phono connectors. Do not use standard audio patch cords.

To connect an audio/video device's outputs to the Model 36, connect the device's video and audio outputs to the corresponding **VIDEO IN** and **AUDIO IN** jacks on the front of the Model 36.



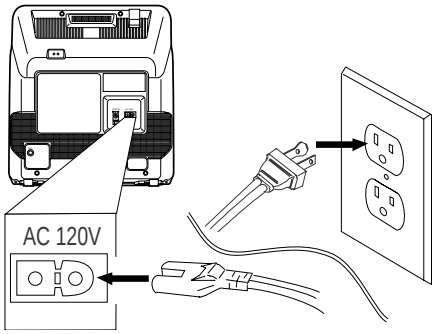
CONNECTING POWER

Using the AC Power Cord

Warning: For your protection, the power cord has a polarized plug. To prevent blade exposure, be sure the blades fit fully and easily into the outlet. If you do not have a polarized outlet, have a qualified electrician install one before you use the Model 36.

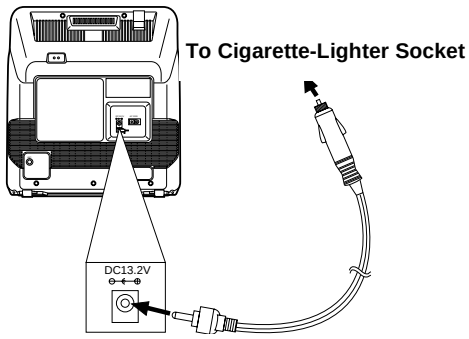
CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

Plug the supplied AC power cord's smaller end into the Model 36's **AC 120V** connector. Then plug the other end into a standard AC outlet.



Using the DC Adapter

To power the Model 36 from your vehicle's battery, plug the supplied DC adapter's small plug into the Model 36's **DC 13.2V** jack. Then tighten the knurled ring on the DC adapter's large plug and plug it into the vehicle's cigarette-lighter socket.



Cautions:

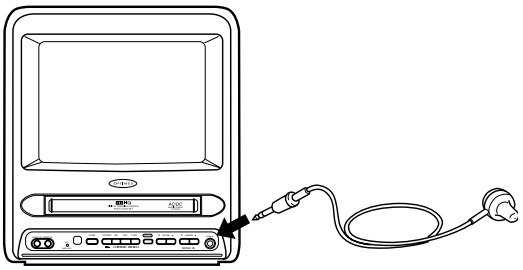
- The supplied DC adapter supplies at least 13.2 volts and delivers at least 5 amps of DC automotive power. Its center tip must be set to positive and its plug must fit the Model 36's **DC13.2V** jack. Using an adapter that does not meet these specifications could damage the Model 36 or the adapter.
- Do not operate your Model 36 while driving.
- Do not mount the Model 36 where it could damage or interfere with the operation of any passive restraint safety device (an air-bag or seat belt).
- The supplied DC adapter was designed specifically for your Model 36. Use only the supplied DC adapter.
- Make sure the ring on the tip of the cigarette-lighter socket is securely screwed in before you insert it into the vehicle's cigarette-lighter socket.
- Be sure the cigarette-lighter socket is free of ashes and other debris.
- Always plug the DC adapter into the Model 36 before you plug it into the cigarette-lighter socket. Always unplug it from the cigarette-lighter socket before you unplug it from the Model 36.
- If you use the Model 36 with the vehicle's engine turned off, you can protect the vehicle's battery from completely discharging by running the engine for a few minutes. Unplug the DC adapter as soon as you finish using the Model 36.

Notes:

- Connecting the DC adapter to the Model 36's **DC13.2V** jack automatically disconnects the Model 36's AC power circuits. To use the Model 36 with AC power, disconnect the DC adapter from the Model 36.
- The fuse supplied with the DC adapter helps protect your vehicle's electrical system and the Model 36. For information about replacing the fuse, see "Replacing the DC Adapter's Fuse" on Page 39.

CONNECTING AN OPTIONAL EARPHONE

To view a video tape or TV program without disturbing others, plug an earphone with a $^{1}/_{8}$-inch (3.5-mm) plug (not supplied) into the Model 36's **EARPHONE** jack. This mutes the Model 36's speaker. Your local RadioShack store sells a wide selection of earphones.



Listening Safely

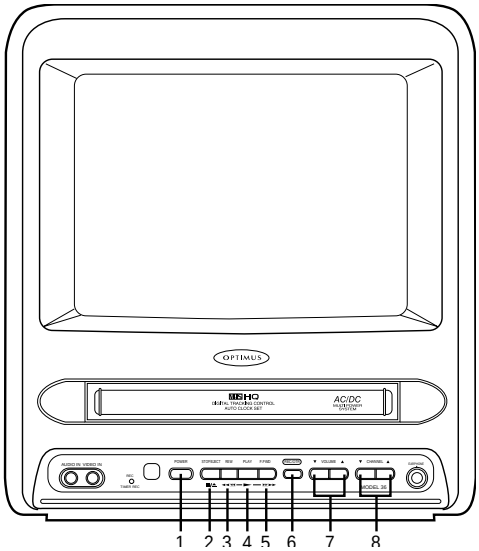
To protect your hearing, follow these guidelines when you use an earphone.

- Set the volume to the lowest setting before you begin listening. After you begin listening, adjust the volume to a comfortable level.
- Do not listen at extremely high volume levels. Extended high-volume listening can lead to permanent hearing loss.
- Once you set the volume, do not increase it. Over time, your ears adapt to the volume level, so a volume level that does not cause discomfort might still damage your hearing.

SETUP

FRONT PANEL

The buttons on the Model 36's front panel control the TV and the VCR.



1. **POWER**
2. **STOP/EJECT**
3. **REW**
4. **PLAY**
5. **F.FWD**
6. **REC/OTR**
7. **VOLUME** s/t
8. **CHANNEL** s/t

REMOTE CONTROL

All of the remote control's buttons have the same functions as the buttons on the Model 36's front panel. In addition, the number buttons let you directly select channels and menu options.

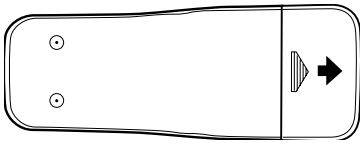
Installing Batteries

The remote control requires two AA batteries (not supplied) for power. For the best performance and longest life, we recommend alkaline batteries such as Cat. No. 23-557.

Cautions:

- Use only fresh batteries of the required size and recommended type.
- Do not mix old and new batteries, different types of batteries (standard, alkaline, or rechargeable), or rechargeable batteries of different capacities.

1. Press down on the battery compartment cover and slide it in the direction of the arrow to remove it.



2. Place the batteries in the compartment as indicated by the polarity symbols (+ and –) marked inside.
3. Replace the cover.

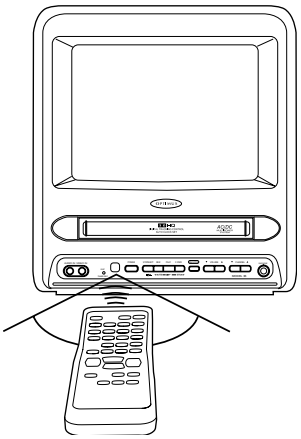
When the remote control operates poorly or not at all, replace the batteries.

Cautions:

- Dispose of old batteries promptly and properly. Do not bury or burn them.
- If you do not plan to use the remote control for a month or more, remove the batteries. Batteries can leak chemicals that can destroy electronic parts.

Using the Remote Control

To use the remote control, aim the front of the remote control toward the front of the Model 36 and press the desired button(s).



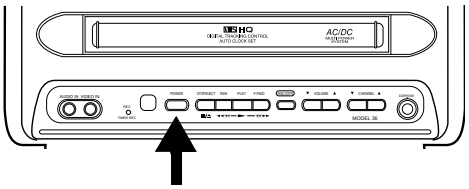
SETTING THE ON-SCREEN LANGUAGE/CHANNELS

The first time you turn on the Model 36, the language selection menu automatically appears, letting you set the Model 36 to display on-screen menus in English or in Spanish.

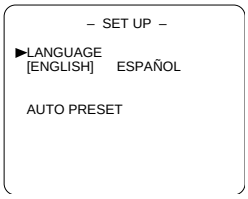
After you select an on-screen language, the Model 36 automatically stores channels into memory.

Note: Make sure you have connected the Model 36 to your cable system or an antenna before continuing (see "Connecting the Supplied Antenna" on Page 11, "Connecting an Outdoor Antenna" on Page 12, or "Connecting to a Cable System" on Page 12).

1. Press **POWER** to turn on the Model 36. The set up screen appears.



2. To select the on-screen language, press **F.FWD/►** or **REW/◄** so the brackets appear around the language you want, **ENGLISH** or **ESPAÑOL** (Spanish).



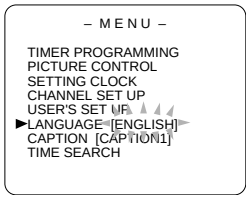
3. Press **PLAY/**s or **STOP/**t to select **AUTO PRESET**.
4. Press **F.FWD/►**. The Model 36 automatically stores active channels (TV or CATV) for about 2 minutes, displaying the channel numbers as it tunes them, then it tunes to the lowest stored channel number.
5. Repeatedly press **CHANNEL** s or t to review the saved channels.

Notes:

- If a channel you wanted was not stored, you can add it. If a channel you did not want was stored, you can delete it. See "Adding/Erasing Channels" on Page 17.
- The Model 36 retains stored channels when you turn off the Model 36 or disconnect power.

Changing the On-Screen Language

1. Press **MENU** to select the main menu.
2. Press **PLAY/**s or **STOP/**t to select **LANGUAGE**.



3. To select the on-screen language, press **F.FWD/►** or **REW/◄** so the brackets appear around the language you want, **ENGLISH** or **ESPAÑOL** (Spanish).
4. Press **MENU** to exit.

Changing the Channels Stored in Memory

Although the Model 36 automatically stores all active channels in your area the first time you turn it on, you can manually set the Model 36 to re-program the tuner's memory.

Note: If you tune both TV (broadcast) and CATV (cable TV) signals, you can store both types of channels.

1. Press **MENU** to select the main menu.
2. Press **PLAY/**s or **STOP/**t to select **CHANNEL SET UP**, then press **F.FWD/►**. The channel set up menu appears.
3. Press **PLAY/**s or **STOP/**t to select **AUTO PRESET**, then press **F.FWD/►**. The Model 36's tuner scans through the channels (TV or CATV) and stores all the active channels in your area. **CH** and the currently tuned channel number appear. After scanning all the channels, the tuner stops on the lowest-numbered active channel.
4. To review the stored channels, repeatedly press **CHANNEL** s or t.

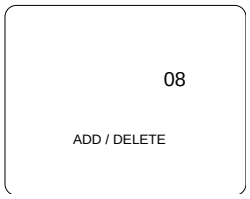
Note: You can directly select channels that are not stored in the tuner's memory by using the remote control's number buttons. See "Selecting Channels" on Page 20.

Adding/Erasing Channels

If a channel you want was not stored, or if a channel you do not want was stored, follow these steps to add or erase it.

1. Press **MENU** to select the main menu.
2. Press **PLAY/**s or **STOP/**t to select **CHANNEL SET UP**, then press **F.FWD/►**. The channel set up menu appears.
3. Press **PLAY/**s or **STOP/**t to select **ADD/ DELETE CH**, then press **F.FWD/►**.
4. Press **CHANNEL** s or t or use the number keys on the remote control to enter the channel number you want to add or erase.

   Note: Precede a single-digit number with a 0 — for example, **01**, **02**, and so on.
5. Repeatedly press **F.FWD/►** or **REW/◄** until the channel number for the channel changes to blue (to add the channel) or to red (to delete the channel).

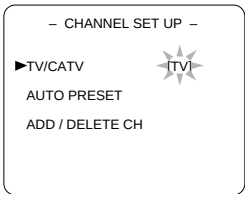


6. Press **MENU** to exit.

SELECTING THE INPUT SIGNAL

Depending on the type of input device (antenna or cable) connected to your Model 36, you must select the input signal (the source you want the Model 36 to tune).

1. Press **MENU** to select the main menu.
2. Press **PLAY/**s or **STOP/**t to select **CHANNEL SET UP**, then press **F.FWD/►**. The channel set up menu appears.



3. Repeatedly press **F.FWD/►** or **REW/◄** to select the desired input signal (**TV** or **CATV**).
   - If you connected an antenna (not cable) to the Model 36 and want to receive up to 68 VHF/UHF channels, or if you have cable service and use a cable box, you must select **TV**.
   - If you have cable service and do not use a cable box, you must select **CATV**.
4. Press **MENU** to exit the menu.

SETTING THE CLOCK

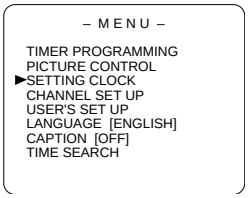
You must set the clock accurately for proper automatic timer recording. In many areas, Public Broadcasting Service (PBS) stations broadcast an Extend Data Service (EDS) signal with their regular broadcast. This signal can automatically set your Model 36's clock to the correct time. If a PBS station is available in your area, follow the steps under "Auto Clock Setting." If not, follow the steps under "Manual Clock Setting" on Page 18.

Auto Clock Setting

Confirm that the antenna connections are correct before using auto clock setting.

Note: Since DC power is often interrupted, you cannot use auto clock setting when you power the Model 36 using DC power. And, if your TV/VCR is connected directly to a cable converter box, the box must be turned on and tuned to the local PBS station.

1. Press **MENU** to select the main menu.
2. Repeatedly press **PLAY/**s or **STOP/**t to select **SETTING CLOCK**, then press **F.FWD/**►.



3. Repeatedly press **F.FWD/**► or **REW/**◄ until **ON** appears next to **AUTO CLOCK**.
4. Repeatedly press **PLAY/**s or **STOP/**t to select **AUTO CLOCK CH**. If you know the channel number of the local PBS station, repeatedly press **F.FWD/**► or **REW/**◄ until the channel number for that station appears.

   If you do not know the PBS channel number, repeatedly press **F.FWD/**► or **REW/**◄ until **AUTO** appears. This sets the Model 36 to automatically search all available channels for an EDS signal.
5. Press **MENU** to exit.
6. Press **POWER** to turn off the Model 36 so it can search for an EDS signal. The power must remain off during this search. If you entered the channel number manually, it may take a few minutes for this search to be completed. If you chose **AUTO**, the Model 36 searches through all the available channels starting with the lowest numbered channel. This search could take up to 10 minutes if the local PBS station is on a high-numbered channel in your area.

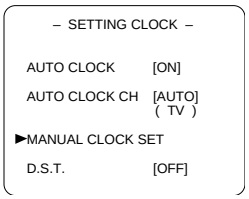
   If the Model 36 finds an EDS signal, the time appears on the TV screen.

If the time set by the selected PBS station is incorrect, the station might be in a different time zone. If the Model 36 does not display the time within about 10 minutes, there might be no station broadcasting an EDS signal in your area. Set the clock manually and turn off the auto clock setting feature.

Manual Clock Setting

Note: You must use the remote control for the following steps.

1. Press **MENU** to select the main menu.
2. Repeatedly press **PLAY/**s or **STOP/**t to select **SETTING CLOCK**, then press **F.FWD/**►. Then, if you are using DC power to power your Model 36, skip to Step 4.
3. Repeatedly press **PLAY/**s or **STOP/**t to select **MANUAL CLOCK SET**, then press **F.FWD/**►.



4. Repeatedly press **PLAY/**s or **STOP/**t to select the correct month, then press **F.FWD/►**.
5. Repeat Step 4 to select the correct date, year, and hour.

   Note: The Model 36 uses a 12-hour clock. Be sure you correctly set AM or PM.
6. Repeatedly press **PLAY/**s or **STOP/**t to select a minute that is 1 or 2 minutes after the current time, then press **F.FWD/►**. (For example, if it is 42 minutes past the hour right now, enter 43 minutes.) This gives you time to complete this procedure before starting the clock.
7. Review the information you entered.

   If the information is not correct, move the cursor to the incorrect entry by repeatedly pressing **F.FWD/►** or **REW/◄**. Then enter the correct information by repeatedly pressing **PLAY/**s or **STOP/**t.

   When the information is correct and the time reaches the minute you set in Step 6, press **MENU**. The time you set appears and the clock starts running.

   Note: Seconds begin counting from 00 when you press **MENU**.

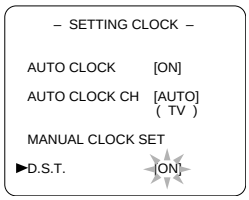
Daylight-Saving Time

When you set **D.S.T.** to **ON**, the VCR automatically adds 1 hour on the first Sunday in April, and subtracts 1 hour on the last Sunday in October.

Note: Since DC power is often interrupted, you cannot use the daylight saving time feature when you power the Model 36 using DC power.

Follow these steps to set daylight-saving time on or off.

1. Press **MENU** to select the main menu.
2. Repeatedly press **PLAY/**s or **STOP/**t to select **SETTING CLOCK**, then press **F.FWD/►**.
3. Repeatedly press **PLAY/**s or **STOP/**t to select **D.S.T.**



4. Press **REW/◄** or **F.FWD/►** to select **ON** or **OFF**.
5. Press **MENU** to exit.

Resetting the Clock

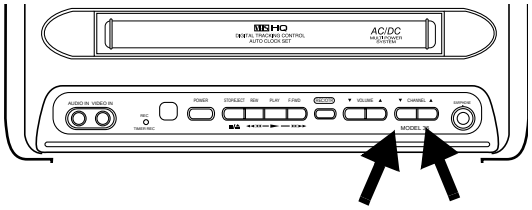
The Model 36 might lose its clock setting if you unplug the AC power cord, DC power is interrupted, or there is a power failure for more than a few seconds. The language selection menu appears when you press **MENU** if the Model 36 loses its clock setting.

If you used auto clock setting to set the clock, simply turn off the Model 36 and wait for about 10 minutes then reset the clock. If you used manual clock setting to set the clock, follow the steps under “Manual Clock Setting” on Page 18 to reset it.

BASIC TV OPERATION

SELECTING CHANNELS

To select a channel, press **CHANNEL** s or t. The tuner automatically advances to the next channel stored in the tuner's memory.



Note: If you press **CHANNEL** s when the tuner is at the highest programmed channel or **CHANNEL** t when the tuner is at the lowest programmed channel, the Model 36 enters the audio/video mode and **AUX** appears (see "Viewing an External Device" on Page 21). If you press **CHANNEL** s or t again, the Model 36 tunes to the lowest or highest programmed channel.

You can also select channels directly using the number keys on the remote control. You can choose any channel in the tuner's range, even if you have not programmed the channel, there is no broadcast present, or the channel is scrambled (the tuner does not unscramble the channel).

Notes:

- Precede a single-digit number with a 0 — for example, **01**, **02**, and so on.
- If you selected the CATV input signal (see "Selecting the Input Signal" on Page 17), press **+100** on the remote control to enter the first digit of a 3-digit channel number. Then use the number keys to enter the second and third digits.

VIEWING TV

Follow these steps to view a broadcast using the TV.

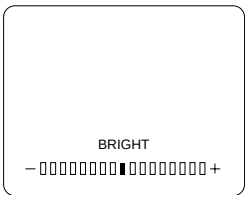
1. Press **POWER** to turn on the Model 36 if necessary.
2. If you have not already done so, select the desired input signal (**TV** or **CATV**). See "Selecting the Input Signal" on Page 17.
3. Select the channel you want to watch.
4. If you are using the indoor antenna, extend and rotate it to get the best reception.

   Note: To improve UHF reception, shorten the indoor antenna.
5. Repeatedly press **VOLUME** s or t to adjust the volume to your listening preferences. A bar graph and a number appear, showing the currently set volume.

ADJUSTING THE PICTURE

Follow these steps to adjust the picture's brightness, contrast, color, tint, or sharpness.

1. Press **MENU** to select the main menu.
2. Press **PLAY/**s or **STOP/**t to select **PICTURE CONTROL**, then press **F.FWD/►**. **BRIGHT** and a bar appear.



3. Repeatedly press **PLAY/**s or **STOP/**t within 5 seconds until the setting you want to adjust (brightness, contrast, color, tint, or sharpness) appears.

   Note: If you do not press **PLAY/**s or **STOP/**t within 5 seconds, the displayed setting disappears. Start over at Step 1.
4. Within 5 seconds, repeatedly press **REW/◄** or **F.FWD/►** to adjust the displayed setting. A bar appears, showing the current setting.

Setting	REW/◄	F.FWD/►
BRIGHT	to decrease	to increase
CON-TRAST	to decrease	to increase
COLOR	toward pale	toward brilliant
TINT	toward purple	toward green
SHARP-NESS	toward soft	toward clear

- To quickly change the displayed setting, hold down **REW/◄** or **F.FWD/►**.
- If you do not press **REW/◄** or **F.FWD/►** within 5 seconds, the displayed setting disappears. Start over at Step 2.

5. Either wait 5 seconds or press **MENU** to exit.

USING MUTE

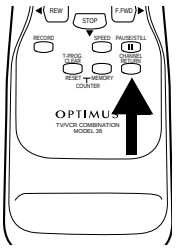
To temporarily turn off the Model 36's sound, press **MUTE**. **MUTE** and the volume level bar appear.

To restore the sound to the previous level, press **MUTE** again. To restore the sound and change its level, press **VOLUME** s or t.

USING CHANNEL RETURN

The Model 36's channel return function lets you quickly switch between channels you tuned (including **AUX**, see "Viewing an External Device") by using the remote control's number buttons.

Repeatedly press **CHANNEL RETURN** on the remote control to switch from the channel you are watching to the previous channel you tuned, and vice versa.



VIEWING AN EXTERNAL DEVICE

To view the signals from an external device you connected to the audio/video input jacks on the front of the Model 36 (see "Connecting an External Device" on Page 13), do either of the following:

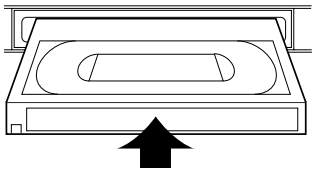
- Enter **00** using the remote control's number buttons.
- Select one channel higher than the highest programmed channel or one channel lower than the lowest programmed channel.

AUX appears on the TV screen.

BASIC VCR OPERATION

LOADING A VIDEO TAPE

Hold the cassette with the main label facing up and the spine facing out from the Model 36. Then insert the cassette into the cassette compartment and gently push the center of its spine until the Model 36 draws it in.



The Model 36 automatically turns on. If the erase-protection tab has been removed from the cassette, playback automatically begins (see "Erase Protection" on Page 28) and **PLAY** ► appears. If the erase-protection tab is intact, the tape does not play and **STOP** appears.

Caution: Never insert anything except a VHS video cassette into the cassette compartment. You might damage the Model 36's internal mechanisms.

Note: If a cassette was loaded when you last turned off the Model 36, you must press **POWER** to turn on the Model 36.

PLAYING A VIDEO TAPE

1. Load a video tape.
2. If playback does not automatically begin, press **PLAY**. **PLAY** ► appears and the Model 36 plays the tape.

   Note: During playback, the Model 36 automatically adjusts the tracking, but you can manually adjust it if necessary (see "Tracking" on Page 23).
3. Repeatedly press **VOLUME** s or t to adjust the volume.

   Note: To adjust the brightness, contrast, color, tint, or sharpness, see "Adjusting the Picture" on Page 20.
4. To stop playback before it automatically stops at the end of the tape, press **STOP/EJECT** on the Model 36 or **STOP** on the remote control.
5. To eject the tape, press **STOP/EJECT** again on the Model 36 or **EJECT** on the remote control.

Note: When the Model 36 is off, you can press **STOP/EJECT** on the Model 36 or **EJECT** on the remote control to eject a tape. The Model 36 turns on, ejects the tape, then turns off.

Automatic Rewind/Eject

If the tape reaches the end before you press **STOP/EJECT** or **EJECT**, the Model 36 automatically stops the tape, then completely rewinds it.

Notes:

- If **REPEAT PLAY** is set to **OFF** (see "Using Automatic Repeat Playback" on Page 26), the Model 36 also ejects the tape then turns off.
- If the counter return feature is turned on (see "Using Counter Return" on Page 25), the tape stops at **0:00:00** and does not eject, and the Model 36 does not turn off.
- The Model 36 ejects the tape and turns itself off, but does not automatically rewind the tape during one-touch recording or automatic timer recording (see "One-Touch Recording (OTR)" on Page 29 and "Automatic Timer Recording" on Page 30).

CHANGING THE TAPE'S DIRECTION/VARYING THE PLAYBACK SPEED

You can use the buttons on the front of the Model 36 and remote control to change the tape's direction and vary the playback speed.

Visual Search

Visual search lets you view recordings either forward or backward at either a normal speed or faster speed, so you can find a specific section of the tape.

Notes:

- You can use normal speed search with tapes recorded at any speed. Faster speed search works only with tapes recorded at the LP or SLP speed. See "Recording/Playback Speeds" on Page 28.
- During visual search, the sound is muted and the picture quality is lower than during normal playback. The search picture is best with tapes recorded at the SLP speed.

To search forward at normal speed during playback, press **F.FWD/►** once. To search backward at normal speed during playback, press **REW/◄** once. To search forward or backward at a faster speed, press **F.FWD/►** or **REW/◄** again.

To stop visual search and resume play, press **PLAY**.

Freeze-Frame

Freeze-frame lets you stop the tape to view a single frame.

To freeze a frame during playback, press **PAUSE/STILL**. If you hear noise during freeze-frame, press **PAUSE/STILL** again.

To resume playback, press **PLAY**.

Notes:

- During freeze-frame, the picture quality is lower than during normal playback. The picture quality is best with recordings made at the SLP speed. See "Recording/Playback Speeds" on Page 28.
- If you leave the Model 36 in the freeze-frame mode for 5 minutes, it automatically stops the tape to protect it.

Fast-Forward/Rewind

To quickly advance or rewind the tape quickly when it is stopped, press **F.FWD/►** or **REW/◄**.

Note: You cannot see the tape's picture or hear the tape's sound while it fast-forwards or rewinds.

TRACKING

The Model 36 automatically adjusts tracking when you play a tape. If different parts of the tape were recorded at different speeds, the Model 36 automatically readjusts the tracking at the beginning of each recording.

If the Model 36's picture is poor while playing a tape, hold down **CHANNEL** t or s to manually adjust the tracking.

Note: When you stop or eject a tape, the Model 36 resets to automatic tracking.

SPECIAL FUNCTIONS

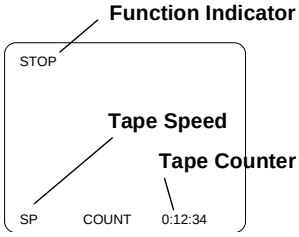
This section describes your Model 36's special on-screen, display, and search functions.

THINGS YOU SEE

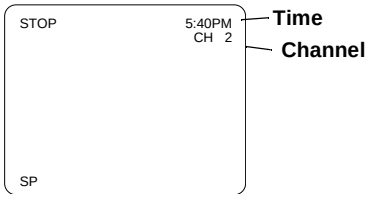
On-Screen Displays

To view your Model 36's current operating mode and other information about your Model 36, repeatedly press **DISPLAY** during playback or while watching TV. Each time you press **DISPLAY**, you see the following information in this order.

- Function indicator/tape speed/tape counter



- Function indicator/tape speed/time/channel



- No display

Notes:

- The function indicator and tape speed only appear for a few seconds, but the tape counter or time and channel indicators remain on until you select another function.
- When you use closed captioning (see "Closed Caption" on Page 27), all the information (function/tape speed/time/channel/tape counter) appears the first time you press **DISPLAY**.

Function Indicators

Each time you press a function button (such as **STOP**), the selected function's indicator appears for about 5 seconds.

When you change the channel, the new channel number appears for about 5 seconds.

Note: If you play back a poor quality (worn) or damaged tape, the function indicator might not appear.

USING THE SLEEP TIMER

The Model 36's sleep timer lets you set the Model 36 so it plays for a specific amount of time, then automatically turns off.

To set the sleep timer, repeatedly press **SLEEP** until the TV screen shows **SLEEP** and the desired sleep time period (such as **SLEEP 30 MINUTE**). You can set the time in 30-minute increments, up to 120 minutes.

After 5 seconds, **SLEEP** and the selected sleep period disappear.

Press **SLEEP** at anytime while the timer is on to view the remaining sleep time for 5 seconds.

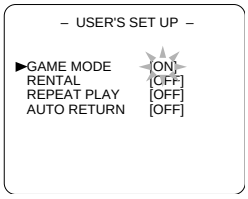
To cancel the sleep timer, repeatedly press **SLEEP** until **SLEEP 0 MINUTE** appears.

USING THE GAME MODE

The Model 36 has a preprogrammed picture control setting for viewing video games or similar programs. This setting softens the contrast and is easier on the eyes.

Follow these steps to turn the game mode on or off.

1. Press **MENU** to select the main menu.
2. Press **PLAY/**s or **STOP/**t to select **USER'S SET UP**, then press **F.FWD/**▶. The user's set up menu appears.



3. Repeatedly press **REW/**◀ or **F.FWD/**▶ until **ON** appears next to **GAME MODE** (to turn on game mode) or until **OFF** appears (to turn it off).
4. Press **MENU** to exit.

Note: If you manually change the picture control settings, the Model 36 automatically sets the game mode to **OFF**.

USING THE COUNTER

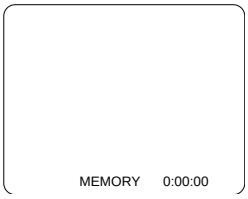
Your Model 36's counter shows how long a tape has been running, in hours, minutes, and seconds. To display the counter, repeatedly press **DISPLAY** until **COUNT** and the counter appear at the bottom of the TV screen. To reset the counter to 0:00:00, press **COUNTER RESET**.

Note: Because the Model 36's counter reads special signals recorded on the tape, the counter might stop while you fast-forward or rewind through a blank section on the tape. This is normal.

Using Counter Return

Follow these steps to use the counter to easily return to a selected point on the tape.

1. During playback, repeatedly press **DISPLAY** until **COUNT** and the counter appear.
2. When you see the location on the tape that you want to return to later, press **COUNTER RESET** then **COUNTER MEMORY**. **MEMORY** replaces **COUNT** next to the counter.



3. To return to the location you selected in Step 2, press **STOP** then **F.FWD/**▶ or **REW/**◀. The tape fast-forwards or rewinds and automatically stops at **0:00:00**.

Notes:

- The tape usually stops exactly at **0:00:00**. However, depending on the tape you use, it might stop a few seconds sooner or later.
- When the tape is stopped at or near **0:00:00**, you can continue to move it forward or backward from there. – appears if you move it backward from **0:00:00**.

To reset the Model 36 so it does not stop the tape at the point you selected in Step 2, repeatedly press **COUNTER MEMORY** until **COUNT** appears next to the counter.

USING TIME SEARCH

Your Model 36 lets you quickly move forward or backward through recorded material on a tape. For example, if you recorded three half-hour programs on a tape and you want to see the third program, you can set the Model 36 to quickly move the tape past the first hour of recorded material.

Note: You do not see the tape's picture or hear the tape's sound while you search the tape.

1. Press **TIME SEARCH**. **TIME SEARCH** appears.

   Note: You can also select **TIME SEARCH** from the main menu.

2. Repeatedly press **PLAY/**s or **STOP/**t to select the desired amount of time you want to search. For example, to search 2 hours and 50 minutes of recorded material, press either button until **2:50** appears on the screen.
3. To select the search direction, press **F.FWD/►** or **REW/◄**. The Model 36 searches the tape in the direction you specified and stops when the running time on the tape is the same as the time you specified in Step 2.

   As the Model 36 searches, the search time, displayed under **TIME SEARCH**, counts up or down.
4. To cancel a time search, press **STOP**.

USING AUTOMATIC REPEAT PLAYBACK

Your Model 36 lets you automatically repeat playback from the beginning to the end of a tape, or from the beginning to a blank (unrecorded) portion of a tape.

Notes:

- **REPEAT PLAY ►** does not appear when **RENTAL PLAY** is set to **ON**. See "Improving Playback of Older (Worn) Tapes".
- During automatic repeat playback, the counter return function does not operate (see "Using Counter Return" on Page 25).

1. Press **MENU**. The main menu appears.
2. Press **PLAY/**s or **STOP/**t to select **USER'S SET UP**, then press **F.FWD/►**. The user's set up menu appears.
3. Press **PLAY/**s or **STOP/**t to select **REPEAT PLAY**.
4. Repeatedly press **REW/◄** or **F.FWD/►** until **ALL** appears next to **REPEAT PLAY** (to repeat playback from the beginning to the end of the tape) or until **BLANK** appears (to repeat playback from the beginning to a blank portion of at least 10 seconds in length).
5. Press **MENU** then **PLAY** to start automatic repeat playback. **REPEAT PLAY ►** appears.
6. To cancel automatic repeat playback, repeat Steps 1–3, repeatedly press **REW/◄** or **F.FWD/►** until **OFF** appears next to **REPEAT PLAY**, then press **MENU**.

Notes:

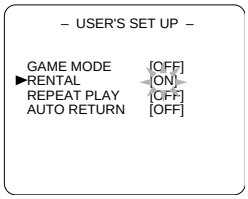
- If you select **ALL** or **BLANK**, the Model 36 is set to automatic repeat playback even after you turn off power. To turn off repeat play, you must select **OFF** in Step 4.
- During automatic repeat playback, none of the buttons on the Model 36 work except **POWER** and **STOP/EJECT**. Always remember to set **REPEAT PLAY** to **OFF** when you do not want to use automatic repeat playback.

IMPROVING PLAYBACK OF OLDER (WORN) TAPES

You can set the Model 36 so it reduces the on-screen noise you might see when you play back older, partially demagnetized tapes (such as tapes that are played often, like rental videos).

Note: Setting rental play to **ON** might reduce the image sharpness.

1. Press **MENU.** The main menu appears.
2. Press **PLAY/**s or **STOP/**t to select **USER'S SET UP**, then press **F.FWD/**►. The user's set up menu appears.
3. Press **PLAY/**s or **STOP/**t to select **RENTAL**.
4. Repeatedly press **REW/**◄ or **F.FWD/**► until **ON** flashes next to **RENTAL** (to turn on rental mode) or until **OFF** flashes (to turn off rental mode).



5. If you set **RENTAL** to **ON**, press **MENU** then **PLAY** to start rental play. **RENTAL PLAY** ► appears.

   If you set **RENTAL** to **OFF**, simply press **MENU** to exit.

Note: If you select **ON**, rental play stays on even after you turn off power. To turn off rental play, you must select **OFF** in Step 4.

CLOSED CAPTION

Most broadcasters send closed captioning information using one of two captioning methods; 1 or 2. You can select one of two options (CAPTION or TEXT) for each type of captioning.

Here are the caption settings you can select:

CAPTION 1 or CAPTION 2 — A narration of the TV program appears.

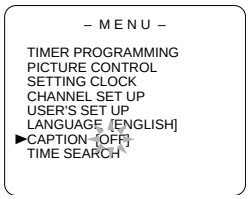
TEXT1 or TEXT2 — The center of the screen is blocked out. When the TV station broadcasts text, such as program listings or special information, it appears in this space.

OFF — Narration does not appear on the screen even if the TV receives a closed caption or text broadcast.

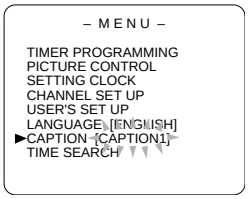
Notes:

- The broadcast closed caption or text signal might be using captioning method 1, 2, or both.
- Text contents can vary, so you might want to try different settings.

1. Press **MENU**. The main menu appears.
2. Press **PLAY/**s or **STOP/**t to select **CAPTION**.



3. Press **REW/**◄ or **F.FWD/**► until the desired caption option flashes (**CAPTION1**, **CAPTION2**, **TEXT1**, or **TEXT2**).



   To turn off closed captioning, select **OFF**.

4. Press **MENU** to exit.

RECORDING

GENERAL INFORMATION

You can use the following methods to record with your Model 36.

- immediate recording — records the program you are watching
- one-touch recording (OTR) — lets you immediately begin a recording that automatically stops after the time you set
- automatic timer recording — lets you set up the Model 36 so it automatically records a broadcast on a channel at a time and tape speed you set then stop recording at a time you set
- dubbing — lets you record from one audio/video device to another

Notes:

- Your Model 36 automatically records the audio signal and adjusts the sound level while it records.
- The video tape you use for recording must have the erase-protection tab in place. If a tape's tab has been removed, the Model 36 automatically ejects the tape if you try to record on it (see "Erase Protection").

Recording/Playback Speeds

There are three VHS recording/playback speeds: SP (short play), LP (long play), and SLP (super long play).

SP (short play) is the fastest recording speed and results in the highest quality picture, but uses the most tape.

LP (long play) records more slowly than SP but more quickly than SLP. LP provides a better quality picture than SLP and uses less tape than SP.

SLP (super long play) records more slowly and uses less tape, but the picture quality is not as high as with a recording made at the SP or LP speeds.

Note: The Model 36 plays back tapes at the speed at which they were recorded.

Tape Selection

The quality of tape you use greatly affects record/playback quality and the life of the Model 36. Use only video cassettes that display the official VHS logo. High-grade tape has a better oxide coating that helps prevent dirty video heads and gives the best results.

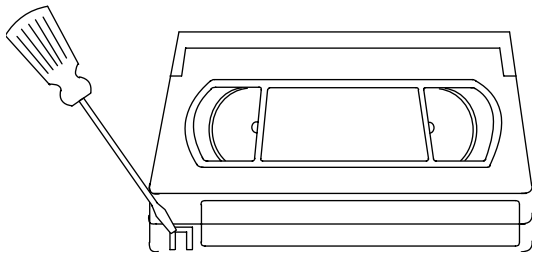
Although T-160 video cassettes offer the longest recording time, they contain thinner tape that is more likely to jam. We suggest you use T-120 or shorter length tape.

The following chart shows the maximum recording times for different-length tapes at the three recording speeds.

Tape Length	SP	LP	SLP
T-60	1 hour (60 min.)	2 hours (120 min.)	3 hours (180 min.)
T-120	2 hours (120 min.)	4 hours (240 min.)	6 hours (360 min.)
T-160	$2^2/_3$ hours (160 min.)	$5^1/_3$ hours (320 min.)	8 hours (480 min.)

Erase Protection

Video cassettes have an erase-protection tab to prevent accidental erasure. To prevent recording on a tape, break off the tab using a screwdriver. The cassette automatically ejects if you try to record on the tape.



If you want to record on a video cassette that has had its tab removed, put a piece of heavy plastic tape over the erase-protection tab hole.

IMMEDIATE RECORDING

Notes:

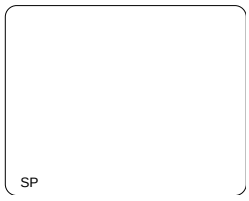
- You cannot use the Model 36 to record one program while you watch another.
- If you want to record from a VCR or other audio/video source with A/V outputs, see "Dubbing (Copying) a Tape" on Page 34.

Follow these steps to record the program you are watching.

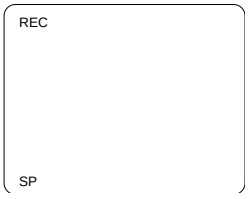
1. Insert a blank cassette, or one that you want to record over, into the cassette compartment. The Model 36 automatically turns on.

   Note: If a cassette was loaded when you last turned off the Model 36, you must press **POWER** to turn on the Model 36.

2. Repeatedly press **SPEED** until the desired recording speed (**SP**, **LP**, or **SLP**) appears.



3. Press **CHANNEL** s or **CHANNEL** t or use the remote control's number buttons to select the desired channel.
4. Press **RECORD** on the remote control or **REC/OTR** on the Model 36. The REC/TIMER REC indicator on the Model 36 flashes, **REC** and the recording speed appear for a few seconds, and the Model 36 records what you see on the TV screen.



Notes:

- You can press **PAUSE/STILL** to temporarily pause recording (during commercials, for example). To resume recording, press **PAUSE/STILL** again or press **RECORD** on the remote control or **REC/OTR** on the Model 36.
- If you pause the Model 36 for 5 minutes while recording, it automatically resumes recording to protect the video heads.
- When you pause the Model 36 during recording, it displays five n marks below **PAUSE**. Each mark represents 1 minute. While the Model 36 is paused, a mark disappears after each minute, one at a time, until one mark remains. The last remaining mark flashes for 1 minute before it disappears. You can use these marks to see how long the tape has been paused.
- To turn the TV screen off or on while recording, press **POWER**.

5. Press **STOP** to stop recording.

ONE-TOUCH RECORDING (OTR)

One-touch recording lets you quickly set the Model 36 to start recording immediately, then stop after a length of time you specify (from 30 minutes to 8 hours).

1. Insert a blank cassette, or one that you want to record over, into the cassette compartment. The Model 36 automatically turns on.

Note: If a cassette was loaded when you last turned off the Model 36, you must press **POWER** to turn on the Model 36.

2. Repeatedly press **SPEED** until the desired recording speed (**SP**, **LP**, or **SLP**) appears.

3. Press **CHANNEL** s or t or use the remote control's number buttons to select the desired channel.
4. Press **REC/OTR** twice on the front of the Model 36 to begin recording. The REC indicator on the Model 36 flashes, **OTR** and **(0:30)** appear for about 5 seconds, and the Model 36 records what you see on the TV screen.
5. To change the displayed total recording time, within 5 seconds repeatedly press **REC/OTR** to advance the time in 30-minute increments.

   Note: If you do not press **REC/OTR** within 5 seconds, the recording time disappears. Simply press **REC/OTR** again to redisplay the remaining recording time.

   When you finish entering all OTR information, the displayed information disappears after 5 seconds.

When the recording stop time is reached during OTR recording, the Model 36 turns off.

Notes:

- To turn the TV picture off or on while recording, press **POWER**.
- To cancel OTR while the Model 36 is recording, press **STOP/EJECT** on the Model 36 (or **STOP** on the remote control).

OTR Hints

- To ensure that you record all of the desired program, you might want to set the recording stop time 30 minutes later than the scheduled end of the program.
- You can program OTR information only while a tape is recording. You cannot program OTR information if a tape is not inserted in the Model 36, if the erase-protection tab on the tape is removed, or if automatic timer recording is in progress.
- During OTR recording, the remaining recording time is displayed for about 5 seconds when you press **REC/OTR**.
- You can check automatic program timer settings during OTR. See "Automatic Timer Recording".
- Be sure the tape length you select for OTR is long enough to record the entire program. Even though you can set the Model 36 to record for up to 8 hours, the actual recording time is limited by the tape's length.

AUTOMATIC TIMER RECORDING

You can program the Model 36's automatic timer to select a channel, start recording a broadcast on that channel at a time and tape speed you set, then stop recording at a time you set. You can set up to 8 automatic program timers to record any combination of weekly, daily, or one-time broadcasts on the same or different channels.

You can program the Model 36 to record at any time on a specific day you set within a 1-year period (ONCE), any time at the same time Monday through Sunday (EVRY DAY), and any time the same day every week (EVRY and desired day of the week).

Note: You cannot set an automatic timer recording while you are recording a program.

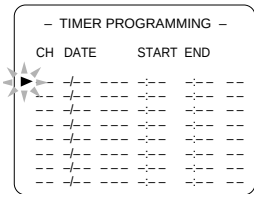
Setting the Automatic Timer

1. Insert a blank cassette, or one that you want to record over, into the cassette compartment. The Model 36 automatically turns on.

   Note: If a cassette was loaded when you last turned off the Model 36, you must press **POWER** to turn on the Model 36.

2. Press **MENU.** The main menu appears.

3. Press **PLAY/**s or **STOP/**t to select **TIMER PROGRAMMING**, then press **F.FWD/►**. The timer programming screen appears.



   Note: If the clock setting screen appears instead of the timer program screen, you must first set the clock before you can continue. For more information, see "Setting the Clock" on Page 18.

   This screen displays the following information about each timer program you set.

   - **CH** (channel to record)
   - **DATE** (month and day of the program)
   - **START TIME** (start time of the program)
   - **END TIME** (end time of the program)

4. Press **PLAY/**s or **STOP/**t to select the desired program, then press **F.FWD/►**.

5. Press **PLAY/**s or **STOP/**t to select the desired channel number, then press **F.FWD/►**.

6. Press **PLAY/**s or **STOP/**t to select the date when you want to record.

   - *To record a broadcast at a specific time and date*, press either button until the desired date appears.
   - *To record a broadcast at the same time Monday through Sunday*, press either button until **EVRY DAY** appears.
   - *To record a broadcast at the same time on the same day every week*, press either button until **EVRY** and the desired day of the week appear together.

   Press **F.FWD/►** to store your selection.

7. Press **PLAY/**s or **STOP/**t to select the start hour. When the correct hour appears, press **F.FWD/►**. Then press **PLAY/**s or **STOP/**t to select the minute and press **F.FWD/►**.

8. Repeat Step 7 to set the stop time.

9. Press **PLAY/**s or **STOP/**t to select the tape speed (**SP**, **LP**, or **SLP**), then press **F.FWD/►**. The timer program screen disappears and the Model 36 stores any settings you entered.

10. Double-check all the set information.

    - If it is correct, press **MENU** to exit.
    - If an entry is not correct, repeatedly press **F.FWD/►** to move forward or **REW/◄** to move backward to the incorrect entry, use **PLAY/**s or **STOP/**t to enter the correct information, then press **MENU**. The Model 36 stores any settings you entered, and the timer program screen disappears.

11. To store settings for other programs, repeat Steps 2–10.

12. Press **POWER** to turn off the Model 36. The REC/TIMER REC indicator turns on, indicating that the Model 36 is in the timer standby mode.

Important:

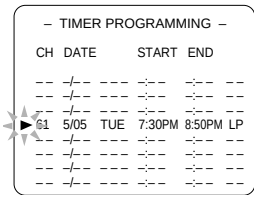
- You can turn on and operate the Model 36 manually prior to the set recording times, but the Model 36 makes automatic timer recording(s) only if the power is off at the set start time(s).
- Be sure the REC/TIMER REC indicator turns on when you turn off the Model 36. If it does not, check your programming.
- If you set up the Model 36 to record a CATV program through a cable box, be sure to leave the cable box turned on and tuned to the correct channel before the timer program starts.

Timer Recording Hints

- The Model 36 can record only one broadcast at a time. If you program the Model 36's timer to record broadcasts on different channels that start at the same time, the Model 36 records these broadcasts in order as they appear on the list, from top to bottom.
- If you insert a tape with its erase-protection tab removed and set a timer, the tape ejects.
- **TIMER REC STANDBY** flashes for 2 minutes before a set start time if the Model 36 is still on. If this happens, press **POWER** to turn it off.
- When there is a power failure or the Model 36 is unplugged for more than a few seconds, the Model 36's clock might be cleared. However, the timer settings are saved. You must set the clock (either using the auto clock set feature or manually) before the Model 36 will perform the timer recording.
- If automatic timers overlap, the one that starts first has priority. When the first program ends, the Model 36 switches to record the remainder of the second program.
- The REC/TIMER REC indicator turns off after the last timer recording ends.

Checking/Changing Automatic Timers

1. Press **POWER** to turn on the Model 36.
2. Press **MENU.** The main menu appears.
3. Press **PLAY/**s or **STOP/**t to select **TIMER PROGRAMMING**, then press **F.FWD/►** . The timer programming screen appears.
4. Press **PLAY/**s or **STOP/**t to select the desired program, then press **F.FWD/►■**

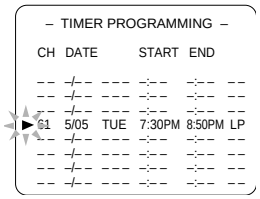


5. Review all the displayed information.
   - If it is correct, press **MENU** to exit.
   - If an entry is not correct, repeatedly press **F.FWD/►** to move forward or **REW/◄** to move backward to the incorrect entry, use **PLAY/**s or **STOP/**t to enter the correct information, then press **MENU**. The Model 36 stores any settings you entered, and the timer program screen disappears.
6. Press **POWER** to turn off the Model 36. The REC/TIMER REC indicator turns on.

Clearing an Automatic Timer

1. Press **POWER** to turn on the Model 36.
2. Press **MENU.** The main menu appears.
3. Press **PLAY/**s or **STOP/**t to select **TIMER PROGRAMMING**, then press **F.FWD/**▶. The timer programming screen appears.

   Note: If the timer recording is already in progress, press **POWER** then press **STOP/ EJECT** on the Model 36.
4. Press **PLAY/**s or **STOP/**t to select the desired program.

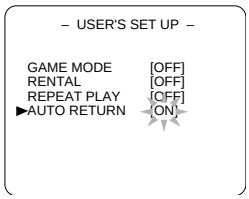


5. Press **T-PROG.CLEAR** to clear the program timer.
6. To clear another program timer, select the timer program, then press **T-PROG.CLEAR** again to clear it.
7. Press **MENU** to exit.

AUTO RETURN

You can have the Model 36 search for and return to the beginning of the recorded program when a timer recording finishes.

1. Press **MENU.** The main menu appears.
2. Press **PLAY/**s or **STOP/**t to select **USER'S SET UP**, then press **F.FWD/**▶. The user's set up menu appears.
3. Press **PLAY/**s or **STOP/**t to select **AUTO RETURN**.
4. Repeatedly press **REW/**◀ or **F.FWD/**▶ until **ON** flashes next to **AUTO RETURN** (to turn on auto return) or until **OFF** flashes (to turn off auto return).



5. Press **MENU** to exit.

When all the timer recordings are completed, the Model 36 rewinds the tape to the beginning of the recorded program(s).

Notes:

- If you press **POWER** while rewinding a tape, the Model 36 turns off auto return.
- You cannot use counter return while using auto return (see "Using Counter Return" on Page 25).

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DUBBING (COPYING) A TAPE

The process of recording from one audio/video device to another is called *dubbing*.

Connecting a Dubbing Source

You can use a VCR, camcorder, satellite receiver, or other device with A/V outputs as the dubbing source, connect the dubbing source to the Model 36, then use your Model 36 to record the signal from the dubbing source.

Note: Always use video-quality shielded cables with phono-type connectors to connect a dubbing source to the Model 36. Do not use standard audio patch cords.

Connect the audio and video outputs of a dubbing source to the **VIDEO IN** and **AUDIO IN** jacks on the front of the Model 36 (see "Connecting an External Device" on Page 13).

Dubbing a Tape

Note: For the best results while dubbing, hold the remote control close to the Model 36's infrared window when you press a button. Otherwise, the remote control might affect the dubbing source's operation.

1. Prepare the dubbing source to play a tape.
2. Insert a blank cassette, or one that you want to record over, into the Model 36's cassette compartment. The Model 36 turns on.
3. Enter **00** using the remote control's number buttons, or press **CHANNEL** s or **CHANNEL** t to select one channel higher than the highest programmed channel or one channel lower than the lowest programmed channel. **AUX** appears on the Model 36's TV screen.
4. Repeatedly press **SPEED** on the remote control until the desired recording speed (**SP**, **LP**, or **SLP**) appears on the TV screen.
5. Press **REC/OTR** on the Model 36 or **RECORD** on the remote control to begin recording.
6. Start the dubbing source.
7. To turn the TV picture off or on while recording, press **POWER**.
8. Press **STOP** on the remote control or **STOP/EJECT** on the front of the Model 36 to stop recording before it automatically stops at the end of the tape. Then stop the dubbing source.

ADDITIONAL INFORMATION

TROUBLESHOOTING GUIDE

If you follow the instructions in this manual and still have trouble operating your Model 36, try the suggestions in this troubleshooting chart. If you still cannot solve the problem, take the Model 36 to your local RadioShack store for assistance.

Problem	Possible Cause	Suggestion
No power.	The power cord (AC or DC) is not connected.	Plug the AC power cord into an AC outlet, or plug the DC adapter into your vehicle's cigarette-lighter socket.
	POWER not pressed.	Press **POWER**.
	DC adapter is connected when you want to use AC power.	Disconnect the DC adapter from the Model 36.
	The fuse in the DC adapter might be blown.	Check the fuse and replace it if necessary (see "Replacing the DC Adapter's Fuse" on Page 39).
Timer recording does not work.	The clock is not set correctly.	Check the clock and reset it if necessary.
	Tape not inserted or erase-protection tab missing.	Insert a tape, or place a piece of strong tape over the erase-protection tab hole. See "Erase Protection" on Page 28.
	The program timer is not set or is set incorrectly.	Set the program timer correctly.
	The Model 36 was not turned off at the set start time (TIMER REC indicator not on).	Press **POWER** to turn off the Model 36 (the TIMER REC indicator should be on).
Cannot record.	Tape not inserted or erase-protection tab missing.	Insert a tape, or place a piece of strong tape over the erase-protection tab hole. See "Erase Protection" on Page 28.
Picture is poor on playback.	The tracking is not properly adjusted.	Adjust the tracking (see "Tracking" on Page 23).
	Video heads are dirty.	The video heads must be cleaned (see "Cleaning the Video Heads" on Page 40).
	The video tape might be faulty.	Try another tape.

Problem	Possible Cause	Suggestion
Operation buttons do not work when power is on and a cassette is inserted (**DEW** appears).	Dew protection system has been activated.	Unplug the Model 36 for about 2 hours or until **DEW** does not appear when you plug it in. Then proceed with operation.
Remote control buttons do not work when the power is on and a cassette is inserted.	The cassette might be jammed.	Press **EJECT** or **STOP/EJECT** several times to release the cassette.
	The remote control's batteries might be weak.	Replace the remote control's batteries if necessary.
	Automatic repeat playback is on (none of the buttons work except **POWER** and **STOP**).	Set automatic repeat playback to **OFF**. See "Using Automatic Repeat Playback" on Page 26.
Cannot record from the input jacks.	Connections are incorrect.	Use shielded audio/video cables with phono-type connectors to connect the source device to the Model 36's input jacks. See "Connecting an External Device" on Page 13.
	Model 36 is not set to **AUX**.	Set Model 36 to **AUX** (see "Viewing an External Device" on Page 21).
Cannot see broadcast TV programs using the Model 36's tuner.	Antenna/CATV connections are incorrect.	Recheck all connections. See "Connections" on Page 11.
Picture or sound is not stable during playback.	Interference from electrical and magnetic sources.	Keep your Model 36 away from electrical and magnetic appliances. Be sure to position it at least 8 inches away from another TV or video monitor.
	The tape might be faulty.	Try another tape.

CARE AND MAINTENANCE

Your Optimus Model 36 9" Color TV/VCR Combo is an example of superior design and craftsmanship. The following suggestions will help you care for your Model 36 so you can enjoy it for years.

Keep the Model 36 dry. If it gets wet, wipe it dry immediately. Liquids might contain minerals that can corrode the electronic circuits.

Use and store the Model 36 only in normal temperature environments. Temperature extremes can shorten the life of electronic devices, damage batteries, and distort or melt plastic parts.

Keep the Model 36 away from dust and dirt, which can cause premature wear of parts.

Handle the Model 36 gently and carefully. Dropping it can damage circuit boards and cases and can cause the Model 36 to work improperly.

Use only fresh batteries of the required size and recommended type. Batteries can leak chemicals that can damage your Model 36's electronic parts.

Wipe the Model 36 with a damp cloth occasionally to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the Model 36.

Modifying or tampering with the Model 36's internal components can cause a malfunction and might invalidate its warranty and void your FCC authorization to operate it. If your Model 36 is not performing as it should, take it to your local RadioShack store for assistance.

THE FCC WANTS YOU TO KNOW

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the *FCC Rules*. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

Your Model 36 might cause radio or TV interference even when it is operating properly. To determine whether your Model 36 is causing the interference, turn off your Model 36. If the interference goes away, your Model 36 is causing it. Try to eliminate the interference by:

- moving your Model 36 away from the receiver
- connecting your Model 36 to an outlet that is on a different electrical circuit from the receiver
- contacting your local RadioShack store for help.

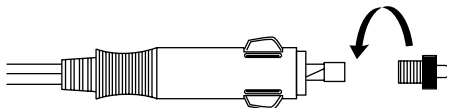
If you cannot eliminate the interference, the FCC requires that you stop using your Model 36.

REPLACING THE DC ADAPTER'S FUSE

If the Model 36 stops operating when the DC adapter is connected, the fuse in the DC adapter might be blown. Follow these steps to check and replace it with a 5-amp, 1 1/4 x 1/4, fast-acting fuse (RadioShack Cat. No. 270-1011, not supplied).

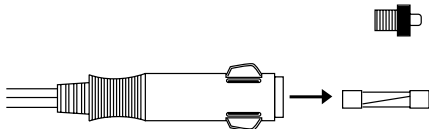
Caution: Using a fuse that does not meet these ratings or defeating the fuse protection can damage your Model 36, the DC adapter, and the vehicle's electrical system.

1. Grasp the ring near the tip of the plug, then carefully unscrew the ring by turning it counterclockwise.

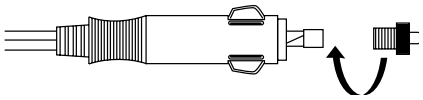


Caution: If you must use pliers to loosen the ring, be careful not to crush the tip. Never use pliers or other tools to retighten the ring on the plug.

2. Pull the ring straight out, then remove the metal tip and old fuse.



3. Check the fuse to see if it is blown. If it is, replace it with a new fuse. If it is not, put the fuse back into the fuse holder.
4. Replace the metal tip inside the ring, then place the fuse inside the cigarette-lighter plug and screw the ring back onto the plug. Make sure that the metal tip is visible when you reassemble the cigarette-lighter plug.



SERVICING YOUR MODEL 36

There are no user-serviceable parts inside your Model 36. If you encounter a problem that you cannot correct using this manual and its troubleshooting guide, take the Model 36 to your local RadioShack store for assistance.

Cleaning the Video Heads

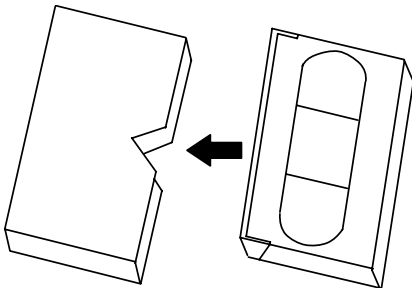
Although the Model 36's automatic head cleaning system helps keep the video heads clean, the video heads will require additional cleaning after long use. Dirty video heads cause the playback picture to blur, even if the recorded signal is clear. However, video head cleaning is a delicate operation that requires a trained technician. For more head cleaning information, contact your local RadioShack store.

Have the video heads cleaned only when picture quality is affected.

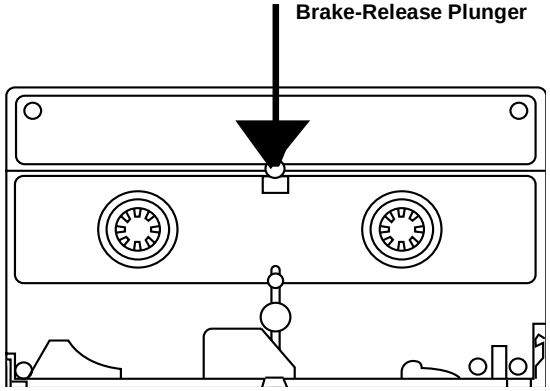
STORING VIDEO CASSETTES

Unless you are making a timer recording, eject and store the cassette when you finish using it. This helps protect the cassette and the Model 36's internal mechanisms from dust.

Place your video cassettes in their protective boxes and store them in a cool, dry, dust-free environment. Store the cassettes on end, not on their sides. This prevents improper settling of the cassette's spools.



Note: Tape can become wound too tightly around the cassette's spools after you play a tape several times. This can cause the cassette to improperly load and automatically eject when you insert it. On most cassettes there is a brake-release plunger on the bottom center of the cassette. Use the tip of a pen or pencil to press the plunger. This loosens the tape.



DEGAUSSING

Your Model 36 has an automatic degauss circuit. The circuit functions each time you turn the power off. However, strong magnetism from nearby appliances might affect the Model 36's picture. If this happens, move the Model 36 away from the appliance. If the Model 36's picture is still affected, turn the power off for 30 minutes, then turn it back on. If the Model 36's picture is still affected, contact your local RadioShack store for assistance.

SPECIFICATIONS

Television System ..... NTSC Standard Color Signal

Playback System ..... Rotary Two-Head Helical Scan System

Tape Width ..... 1/2 Inch

Tape Speed:

- SP ..... 1.31 Inch/sec. (33.35 mm/s)
- LP ..... 0.65 Inch/sec. (16.67 mm/s)
- SLP ..... 0.43 Inch/sec. (11.12 mm/s)

Tuner Channels:

- VHF 2–13
- UHF 14–69
- CATV 125

Terminals:

- Antenna Input ..... VHF/UHF 75 Ohms Unbalanced
- Video Input ..... Phono connector
- Audio Input ..... Phono connector
- Earphone ..... 1/8-inch plug (3.5-mm)

Power Requirements:

- AC ..... 120V, 60 Hz
- DC 13.2V

Power Consumption:

- AC ..... 65 Watts
- DC ..... 65 Watts

Dimensions (HWD) ..... $12^{7}/_{8} \times 11^{13}/_{16} \times 12^{13}/_{16}$ Inches
($32.8 \times 30.0 \times 32.6$ cm)

Weight ..... Approx. 18.7 Lbs
(8.5 kg)

Included Accessories ..... UHF/VHF Dipole Antenna
AC Power Cord
DC Adapter
300-to-75-ohm Matching Transformer
Remote Control

Specifications are typical; individual units might vary. Specifications are subject to change and improvement without notice.

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NOTES

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Limited Ninety-Day Warranty

This product is warranted by RadioShack against manufacturing defects in material and workmanship under normal use for ninety (90) days from the date of purchase from RadioShack company-owned stores and authorized RadioShack franchisees and dealers. EXCEPT AS PROVIDED HEREIN, RadioShack MAKES NO EXPRESS WARRANTIES AND ANY IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE DURATION OF THE WRITTEN LIMITED WARRANTIES CONTAINED HEREIN. EXCEPT AS PROVIDED HEREIN, RadioShack SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO CUSTOMER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS OR DAMAGE CAUSED DIRECTLY OR INDIRECTLY BY USE OR PERFORMANCE OF THE PRODUCT OR ARISING OUT OF ANY BREACH OF THIS WARRANTY, INCLUDING, BUT NOT LIMITED TO, ANY DAMAGES RESULTING FROM INCONVENIENCE, LOSS OF TIME, DATA, PROPERTY, REVENUE, OR PROFIT OR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, EVEN IF RadioShack HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Some states do not allow the limitations on how long an implied warranty lasts or the exclusion of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

In the event of a product defect during the warranty period, take the product and the RadioShack sales receipt as proof of purchase date to any RadioShack store. RadioShack will, at its option, unless otherwise provided by law: (a) correct the defect by product repair without charge for parts and labor; (b) replace the product with one of the same or similar design; or (c) refund the purchase price. All replaced parts and products, and products on which a refund is made, become the property of RadioShack. New or reconditioned parts and products may be used in the performance of warranty service. Repaired or replaced parts and products are warranted for the remainder of the original warranty period. You will be charged for repair or replacement of the product made after the expiration of the warranty period.

This warranty does not cover: (a) damage or failure caused by or attributable to acts of God, abuse, accident, misuse, improper or abnormal usage, failure to follow instructions, improper installation or maintenance, alteration, lightning or other incidence of excess voltage or current; (b) any repairs other than those provided by a RadioShack Authorized Service Facility; (c) consumables such as fuses or batteries; (d) cosmetic damage; (e) transportation, shipping or insurance costs; or (f) costs of product removal, installation, set-up service adjustment or reinstallation.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

RadioShack Customer Relations, Dept. W, 100 Throckmorton St., Suite 600, Fort Worth, TX 76102

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